

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS:

1 – 97. (Canceled)

98. (new) A recombinant protein that is free of all central nervous system myelin material with which it is natively associated, wherein the protein comprises an amino acid sequence, and wherein, in a BLAST computer alignment of the amino acid sequence of the protein with an amino acid sequence selected from the group consisting of (i) amino acids 1-1163 of SEQ ID NO:2 and (ii) amino acids 1-171 fused to 975-1163 of SEQ ID NO:2, at least 80% of the amino acid residues in amino acids 1-1163 of SEQ ID NO:2 or in amino acids 1-171 fused to 975-1163 of SEQ ID NO:2, respectively, is identical to the aligned amino acid residues of the amino acid sequence of the protein.

99. (new) A recombinant protein that is free of all central nervous system myelin material with which it is natively associated, wherein the protein comprises an amino acid sequence, and wherein, in a BLAST computer alignment of the amino acid sequence of the protein with an amino acid sequence selected from the group consisting of (i) amino acids 1-1178 or (ii) amino acids 1-172 fused to amino acids 990-1178 of SEQ ID NO:29, at least 85% of the amino acid residues in amino acids 1-1178 or in amino acids 1-172 fused to amino acids 990-1178 of SEQ ID NO:29, respectively, is identical to the aligned amino acid residues of the amino acid sequence of the protein.

100. (new) A recombinant protein that is free of all central nervous system myelin material with which it is natively associated, wherein the protein comprises an amino acid sequence, and wherein, in a BLAST computer alignment of the amino acid sequence of the protein with an amino acid sequence of (i) amino acids 975-1163 of SEQ ID NO:2 or (ii) amino acids 990-1178 of SEQ ID NO:29, at least 95% of the amino acid residues in amino acids 975-1163 of SEQ ID NO:2 or in amino acids 990-1178 of SEQ ID NO:29, respectively, is identical to the aligned amino acid residues of the amino acid sequence of the protein.

101. (new) The recombinant protein of claim 98, 99 or 100, wherein said protein is a mammalian protein.

102. (new) The recombinant protein of claim 99, wherein said protein is a human protein.

103. (new) A recombinant protein that is free of all central nervous system myelin material with which it is natively associated, wherein said protein comprises an amino acid sequence selected from the group consisting of SEQ ID NO:2, amino acids 1-171 fused to 975-1163 of SEQ ID NO: 2, amino acids 975-1163 of SEQ ID NO: 2, SEQ ID NO:29, amino acids 1-172 fused to 990-1178 of SEQ ID NO:29, amino acids 990-1178 of SEQ ID NO:29, and SEQ ID NO:32.

104. (new) A purified protein, wherein said purified protein comprises an amino acid sequence, and wherein, in a BLAST computer alignment with the amino acid sequence selected from the group consisting of amino acids 975-1163 of SEQ ID NO: 2, amino acids 990-1178 of SEQ ID NO:29, and SEQ ID NO:32, at least 95% of the amino acid residues in amino acids 975-1163 of SEQ ID NO: 2, in amino acids 990-1178 of SEQ ID NO:29, or in SEQ ID NO:32, respectively, is identical to the aligned amino acid residues in the sequence of the protein, and wherein the protein is free of all central nervous system myelin material with which it is natively associated.

105. (new) The protein of claim 104, wherein the protein is recombinantly produced.

106. (new) The protein of claim 98, 99, or 100, which is encoded by a first nucleic acid that hybridizes under conditions of high stringency to a second nucleic acid consisting of the nucleotide sequence depicted in Figure 2a (SEQ ID NO:1) or the nucleotide sequence depicted in Figure 12 (SEQ ID NO:28).

107. (new) A purified protein comprising an amino acid sequence selected from the group consisting of residues 31-57 depicted in Figure 2a (SEQ ID NO:2), residues 11-191 depicted in Figure 14 (SEQ ID NO:32), residues 988-1023 depicted in Figure 2a (SEQ ID NO:2), residues 1090-1125 depicted in Figure 2a (SEQ ID NO:2), residues 994-1174 depicted in Figure 13 (SEQ ID NO:29), residues 977-1012 depicted in Figure 13 (SEQ ID NO:29), and residues 1079-1114 depicted in Figure 13 (SEQ ID NO:29), and wherein the

protein is free of all central nervous system myelin material with which it is natively associated.

108. (new) A chimeric protein comprising a first protein, wherein, in a BLAST computer alignment of the amino acid sequence of the first protein with an amino acid sequence selected from the group consisting of amino acids 1-1163 of SEQ ID NO:2; amino acids 1-171 fused to 975-1163 of SEQ ID NO:2; amino acids 975-1163 of SEQ ID NO:2; amino acids 975-1163 of SEQ ID NO: 2; amino acids 990-1178 of SEQ ID NO:29, and SEQ ID NO:32, at least 95% of the amino acid residues in amino acids 1-1163 of SEQ ID NO:2; in amino acids 1-171 fused to 975-1163 of SEQ ID NO:2; in amino acids 975-1163 of SEQ ID NO:2; in amino acids 975-1163 of SEQ ID NO: 2; in amino acids 990-1178 of SEQ ID NO:29, or in SEQ ID NO:32, respectively, is identical to the aligned amino acid residues of the amino acid sequence of the protein; and wherein the first protein is fused by a covalent bond to at least a portion of a second protein, wherein the second protein is different from the first protein.

109. (new) A purified molecule comprising the protein of claim 98, 99, or 100.

110. (new) A purified protein wherein the protein lacks amino acid residues (i) 172-259 of SEQ ID NO:2; or (ii) 974-1162 of SEQ ID NO:2; or (iii) 172-259 and 974-1162 of SEQ ID NO:2, but otherwise comprises the remainder of SEQ ID NO: 2.

111. (new) A purified protein wherein the protein lacks amino acid residues (i) 132-206 of SEQ ID NO:29; or (ii) 939-1127 of SEQ ID NO:29; or (iii) 132-206 and 939-1127 of SEQ ID NO:29, but otherwise comprises the remainder of SEQ ID NO:29.

112. (new) The protein of claim 98, 99, 100, 104, 105, 107, 108, 109, 110, or 111, wherein the protein displays neurite outgrowth inhibitory activity.

113. (new) A purified protein that is free of all central nervous system myelin material with which it is natively associated, wherein said protein comprises the amino acid sequence of SEQ ID NO:29.